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## Prevalence of pre-viva induced stress in physiotherapy students by student stress inventory scale

Sneha Kamble and Dr. Pallavi Chicholikar

### Abstract

**Background:** Health profession education is highly demanding and challenging for students to deal with a complex learning environment. Health care education can be a stressful experience for individuals and may negatively affect the students' emotional well-being and academic performance.

**Objectives:** To assess the level of stress among students before the viva exam by student's stress inventory scale, & to identify the factors causing stress before the viva exam by student's stress inventory scale.

**Materials and Methods:** A cross-sectional study was conducted at late Shri Fakirbhai Pansare Education Foundations College of physiotherapy, Nigdi, Pune, among 82 physiotherapy students in their first to final year. They were screened for stress by using the student's stress inventory scale which has 4 domains. Analysis was done by using SPSS software.

**Results:** out of 82 study subjects, most of them were female (83%) as compared to male (17%). majority of students (48%) belonged to 4<sup>th</sup> year followed by (29%) were from 1<sup>st</sup> year respectively. Values produced on SSI indicate the majority of students (71%) had a mild level of stress followed by (28%) who had a moderate level of stress among university physiotherapy students. Out of all the factors affecting stress present study found that Academic and Environmental factors were the ones that affected the students most.

**Conclusion:** The undergraduate physiotherapy students experienced (71%) mild, (23%) moderate & (1%) severe level of stress, out of all components academic and environmental factors were responsible for producing more stress among students of all years.

**Keywords:** Pre-viva, stress, physiotherapy, medical students

### Introduction

Health profession education is highly demanding and challenging for students to deal with a complex learning environment. Health care education can be a stressful experience for individuals and may negatively affect the students' emotional well-being and academic performance. Studies suggest that high levels of stress and psychological morbidity occur in healthcare profession students<sup>[1]</sup>.

Stress in an individual is defined as anything that disrupts the normal person's physical or mental well-being. A mild form of stress may manifest as a bad mood while an extreme one may lead to an act of violence, burnout, or suicide<sup>[2]</sup>.

WHO has projected that stress disorder will be ranked as the second most disabling disorder unless appropriate measures are taken for early diagnosis, prompt and effective treatment, and prevention of stress<sup>[3]</sup>.

According to WCPT Physiotherapy is a healthcare profession concerned with human function and movement and maximizing physical potential within the spheres of promotion, prevention, treatment intervention, and rehabilitation. Physiotherapy includes four years of education program with six months of internship practice. These four years may be stressful for students to get satisfied with all their achievements. During these four years, theory and practical exams are conducted, and students experience stress in both exams but particularly in the viva, there is more stress while speaking to the examiner and students get very tense before the viva exam. Stress is not quantified now or no studies are done to clear the demarcation of stress<sup>[4]</sup>.

Stress is a particular pattern of disturbing psychological and physiological reaction that occurs when an environmental event threatens important motives of one's ability to cope<sup>[3]</sup>.

Stimuli that alter an organism’s environment are responded to by multiple systems in the body. The autonomic nervous system and hypothalamic-pituitary-adrenal axis (HPA) are two major systems that respond to stress. The sympathoadrenal medullary axis (SAM) may activate the fight-or-flight response through the sympathetic nervous system, which dedicates energy to more relevant bodily systems for acute adaptation to stress.

The second major physiological stress response centre, the HPA axis regulates the release of cortisol, which influence many bodily functions such as metabolic, psychological, and immunological functions.

Stress can be positive or negative. Positive stress is called eustress and negative stress is called distress. Eustress triggers the body alarm and enhances attention, performance & creativity. It has a temporary effect only. Distress has negative efforts on the body [2].

The subjective experience of stressors in students can lead to poor quality of life, condensed self-esteem resulting in lower self-confidence, compromised ability to cope with daily life problems and may influence academic achievements of the students [5, 6]. Students who drop out of professional institutions do not lack intellectual ability, but emotional problems and poor motivation lead to failure [7].

Medical education poses many new challenging and potentially threatening situational demands on the incoming student throughout the world. Psychological stress has long been regarded as influencing learning & performance. There is evidence that mental distress during medical school predicts later problems in medical professionals, which in addition to the personal suffering experienced by the individual doctor might negatively affect patient care [2].

There is a substantial amount of literature that suggests that PT education is a demanding field and students are subjected to different kinds of stressors such as academic demands and pressure, competition for good grades, social adjustment, interpersonal and family problems, the uncertainty of future, lack of leisure time, too much workload and financial concerns. This stressor can affect students learning capacity, academic output as well as their day-to-day adjustment process [8, 9].

There are various assessment tools to measure stress levels which is a test by students, here we have used the Students Stress Inventory Scale (SSIS) which can be used to measure the stress level among undergraduate PT students.

The student stress inventory was developed to measure the level of stress among university students. The SSIS was composed by the researchers from faculty of education and human development at Sultan Idris Education University, which is based on the combination of two theories which are the general adaptation syndrome and the environmental stress theory.

**Materials and Methods**

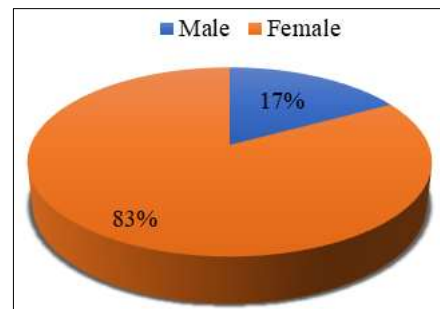
A descriptive cross-sectional study was used in this research. A sample consisting of 82 physiotherapy undergraduate students, from all four years from late Shri Fakirbhai Pansare education Foundations College of physiotherapy, Nigdi, Pune (Maharashtra) in the age group of 18-23 years was selected and invited to participate in this study. Participation was completely voluntary and any history of psychotic disorder was excluded. Written informed consent was taken from the subjects and the student’s stress inventory scale (SSI) was explained to them

in detail. One evaluator distributed a questionnaire among students and collected data.

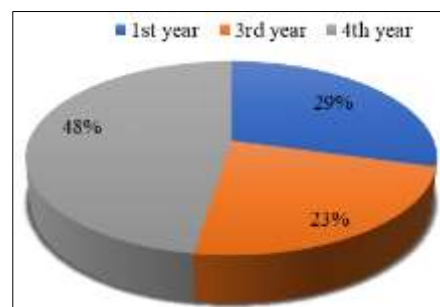
**Student’s Stress Inventory Scale (SSI)**

The Students Stress Inventory Scale (SSI) is a self-report measure of stress, consisting of 4 domains (Physical, Interpersonal Relationship, Academic, & Environmental) that are easy to understand, and the response alternatives are simple to grasp. Student’s Stress Inventory Scale (SSI) is a reliable and valid scale for the measurement of stress. Responses to each question are 1- Never, 2- Somewhat frequent, 3-Frequent, 4- Always. In terms of score analysis and interpretation, SSI suggested those who obtained score within 122-160 reflects having severe stress, 81-121 reflects having moderate stress, and those who obtained a score of 40-80 reflects having mild stress [10].

**Results**



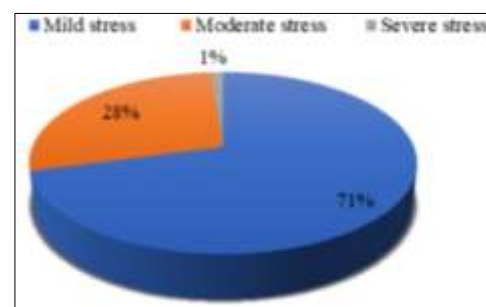
**Fig 1:** Gender-wise distribution of students



**Fig 2:** Academic year-wise distribution of students

**Table 1:** Mean score of stress in various domains in physiotherapy students

Domains	Mean ± SD
Physical	17.75±5.44
Interpersonal Relationship	16.58±3.98
Academic	19.96±5.63
Environmental	17.93±5.69



**Fig 3:** Distributions of study subjects according to the level of stress

## Discussion

Stress is defined as the specific response of the body to any demand on it. There are innumerable stress factors since different individuals react differently to the same stress conditions. Stress is a normal universal human experience and a routine part of human lives<sup>[11]</sup>.

The possible reasons for the above-mentioned findings could be because of students staying at a hostel and away from their families. Living alone in hostels/apartments and Lack of recreational activities could be one of the reasons<sup>[12]</sup>.

This study explores the prevalence of stress among undergraduate physiotherapy students by using the Students stress inventory (SSI) scale.

In the present study, we found out of 82 study subjects' the majority of were female (83%) as compared to male (17%). According to academic year distribution, we found that the majority of students (48%) belonged to the 4<sup>th</sup> year followed by (29%) were from the 1<sup>st</sup> year respectively.

The values produced on SSI indicates the majority of students (71%) had mild level of stress followed by (28%) who had a moderate level of stress among university physiotherapy students.

Out of all the factors affecting stress present study found that Academic and Environmental factors were the ones that affected the students most. That is because the workload is high in academics, students can't cope with their studies and some are not interested in the profession.

Similar results were found by Patel *et al.* that, physiotherapy students of the University experienced mild to moderate levels of stress, out of all components environmental and academic factors were responsible for producing more stress among students of all years<sup>[12]</sup>.

Also, a study done by Fazaila Sabih *et al.* found that Two hundred and three respondents (88%) reported feeling stressed: 97(42%) students were mildly stressed, 92(40%) were moderately stressed, and 14 (6%) were severely stressed<sup>[13]</sup>.

Khisty *et al.* found that there was a high prevalence of stress in physiotherapy undergraduate and postgraduate students, with a moderate level of stress in the academic and social section<sup>[11]</sup>.

## Conclusion

It can be concluded that the majority of undergraduate physiotherapy students experienced mild, followed by moderate & severe levels of stress, out of all components academic and environmental factors were responsible for producing more stress among students of all years.

**Conflict of Interest:** NIL

**Source of Funding:** NIL

## References

1. Omigbodun OO, Odugogbe AT, Omigbodun AO, Yusuf OB, Bella TT, Olayemi O. Stressors and psychological symptoms in students of medicine and allied health professions in Ngeria. *Social psychiatry and psychiatric epidedemiology* 2006 May 1;41(5):415-21.
2. Sani M, Mahfouz MS, Bani I, Alsomily AH, Aagi D, Alsomily NY. Prevalence of stress among medical students Jizan university, kingdom of Saudi Arabia. *Gulf medical journal*. 2012;1(1):19-25.
3. Hirschfeld RM, Keller MB, Panica S. arons BS, Barlow D, Davidoff F, Endicott J, Froom J, Goldstein M, Gorman JM, Guthrie D. The National dEpressive and Manic-Depressive Association consensus statement on the undertreatment of depression. *Jama*. 1997 Jan 22;277(4):333-40.
4. WCPT policy statement: Decsriptionofphysicathrapyhttp://www.wcpt.org/policy/ps-description PT.
5. Lazarus RS and Folkman S stress, appraisal, and coping. Newyork: springer publishing company, 1984, pp21.
6. Silver HK, Glick AD. Medical student abuse. Incidence, severity and significance. *JAMA* 1990;263:527-32.
7. Niemi PM, Vainiomaki physiotherapy, medical students academic distress, coping and achievements strategies during the pre-clinical years. *Teach, learn Med* 1999;11:125-34.
8. Bramness JA, Fixdal TC, Valgam P. Effect of medical school stress on the mental health of medical studenta in early and late clinical curriculum. *Acta psychuatr Scand* 1991;84:340-5.
9. Walsh JM, Feeney C, Hussey J, Donnellan C. Sources of stress and psychological morbidity among undergraduate physiotherapy students physiotherapy 2010;96:206-12
10. Mohamed arip, Mohammad Aziz Shah. Manual of student stress inventory (SSI) Development, Validity And Reliability of Student Stress Inventory (SSI), 2016.
11. Dr. Abha Khisty, Dr. Ankita Kale, Dr.Tushar J. Palekar. Prevalance of stress in physiotherapy students:a cross sectional study. *Proteaus journal*. 2020;11(7):70-9.
12. Jagruti k Patel, Kajal A Hadiya. To Assess the Level of Stress Among University Undergraduate Physiotherapy Students. *Indian Journal of Physiotherapy and Occupational Therapy*. 2020;14(4):33-9.
13. Fazaila Sabih *et al.* J Pak Med Assoc. Assessment of stress among physiotherapy students at Riphah Centre of Rehabilitation Sciences. 2013;63(3):346-9.